

WHAT IS CLAIMED IS:

1. A switched capacitor circuit, comprising:

a differential amplifier;

a non-inverting-side switch and an inverting-side switch, respectively connected to a non-inverting input terminal and an inverting input terminal of the differential amplifier, for resetting the non-inverting input terminal and the inverting input terminal, respectively;

a non-inverting-side line connecting the non-inverting input terminal and the non-inverting-side switch;

an inverting-side line connecting the inverting input terminal and the inverting-side switch;

a signal line crossing one of the non-inverting-side line and the inverting-side line; and

an inverting signal line, crossing the one of the non-inverting-side line and the inverting-side line, for receiving an inverting signal of a signal to be transmitted via the signal line.

2. The switched capacitor circuit as set forth in Claim 1, wherein:

(a) areas in which the capacitors are respectively provided, (b) areas in which the switches are respectively provided, and (c) areas in which clock signal lines for supplying a clock signal respectively to the switches are

respectively provided, are provided respectively on both sides of an area in which the differential amplifier is to be provided, in this order from the area in which the differential amplifier is to be provided.

3. A switched capacitor circuit, comprising:

a differential amplifier;

a non-inverting-side line, one end of which is connected to a non-inverting-side first capacitor, and the other end of which is connected to a non-inverting input terminal of the differential amplifier via a non-inverting-side second capacitor; and

an inverting-side line, one end of which is connected to an inverting-side first capacitor, and the other end of which is connected to an inverting input terminal of the differential amplifier via an inverting-side second capacitor,

wherein a signal line crossing one of the lines is so positioned as to cross the other of the lines,

wherein (a) a portion of the non-inverting-side line from an end of the non-inverting-side second capacitor to a cross-point between the non-inverting-side line and the signal line or to a vicinity of the cross-point, and (b) a portion of the inverting-side line from an end of the inverting-side second capacitor to a cross-point between the inverting-side line and the signal line or to a vicinity of

the cross-point, are positioned next to each other, and  
wherein operation is carried out in accordance with  
the principle of conservation of charge in the both lines.

4. The switched capacitor circuit as set forth in Claim  
3, further comprising:

guard lines, provided so as to sandwich the  
non-inverting-side line and the inverting-side line, for  
receiving a steady potential.

5. A switched capacitor circuit, comprising:

a differential amplifier;

a non-inverting-side line, one end of which is  
connected to a non-inverting-side first capacitor, and the  
other end of which is connected to a non-inverting input  
terminal of the differential amplifier via a  
non-inverting-side second capacitor;

an inverting-side line, one end of which is connected  
to an inverting-side first capacitor, and the other end of  
which is connected to an inverting input terminal of the  
differential amplifier via an inverting-side second capacitor;  
and

a non-inverting-side switch and an inverting-side  
switch, respectively connected to a non-inverting side line  
and an inverting side line, for resetting the non-inverting

side line and the inverting side line , respectively,

wherein areas in which the switches are respectively provided are provided on both sides of the differential amplifier, respectively,

wherein each of the non-inverting-side switch and the inverting-side switch is made of a pair of first and second switches connected to each other in parallel,

wherein in one of the areas, which is a first area, the non-inverting-side first switch and the inverting-side first switch are provided, and in the other of the areas, which is a second area, the non-inverting-side second switch and the inverting-side second switch are provided, and

wherein operation is carried out in accordance with the principle of conservation of charge in the both lines.

6. The switched capacitor circuit as set forth in Claim 5, wherein:

a signal line crossing one of the lines is so positioned as to cross the other of the lines.

7. The switched capacitor circuit as set forth in Claim 5, further comprising:

guard lines, provided so as to sandwich the non-inverting-side line and the inverting-side line, for receiving a steady potential.

8. A switched capacitor circuit, comprising:

a differential amplifier;

a non-inverting-side line, one end of which is connected to a non-inverting-side first capacitor, and the other end of which is connected to a non-inverting input terminal of the differential amplifier via a non-inverting-side second capacitor;

an inverting-side line, one end of which is connected to an inverting-side first capacitor, and the other end of which is connected to an inverting input terminal of the differential amplifier via an inverting-side second capacitor;

a signal line crossing one of the non-inverting-side line and the inverting-side line; and

an inverting signal line, crossing the one of the non-inverting-side line and the inverting-side line, for receiving an inverting signal of a signal to be transmitted via the signal line,

wherein operation is carried out in accordance with the principle of conservation of charge in the both lines.